

TABLE 120.I104.1(1) DESIGN WIND PRESSURES FOR ALUMINUM SCREEN ENCLOSURE FRAMING WITH AN IMPORTANCE FACTOR OF 0.77 ^{a,b,c}													
Load Case	WALL	Basic Wind Speed (mph)											
		100		110		120		130		140		150	
		Exposure Category Design Pressure (psf)											
		C	B	C	B	C	B	C	B	C	B	C	B
A ^d	Windward and leeward walls (flow thru) and windward wall (non-flow-thru) L/W = 0-1	12	8	14	10	17	12	19	14	23	16	26	18
A ^d	Windward and leeward walls (flow thru) and windward wall (non-flow-thru) L/W = 2	13	9	16	11	19	14	22	16	26	18	30	21
B ^e	Windward: Non-gable roof	16	12	20	14	24	17	28	20	32	23	37	26
B ^e	Windward: Gable roof	22	16	27	19	32	23	38	27	44	31	50	36
	ROOF												
All ^f	Roof-screen	4	3	5	4	6	4	7	5	8	6	9	7
All ^f	Roof-solid	12	9	15	11	18	13	21	15	24	17	28	20

For SI: 1 mile per hour = 0.44 m/s

a. Values have been reduced for 0.77 Importance Factor in accordance with 780 CMR 1604.5 and ASCE-7

b. Minimum design pressure shall be 10 psf and otherwise governed in accordance with 780 CMR 1609, inclusive / If a higher design pressure is determined, then that higher design pressure shall be utilized.

c. Loads are applicable to screen enclosures with a mean roof height of 30 feet or less. For screen enclosures of differential heights, the pressures given shall be adjusted by multiplying the applicable pressure from 780 CMR Table 120.I104.1(1) by the adjustment factor given in 780 CMR Table 120.I104.1(2).

d. For Load Case A flow-thru condition, the pressure given shall be applied simultaneously to both the upwind and downwind screen walls acting in the same direction as the wind. The structure shall also be analyzed for wind coming from the opposite direction. For the non-flow thru condition, the screen enclosure wall shall be analyzed for the load applied acting toward the interior of the enclosure.

e. For Load Case B, the appropriate Table 120.I104.1(1) pressure multiplied by the projected frontal area of the screen enclosure is the total drag force, including drag on screen surfaces parallel to the wind, which must be transmitted to the ground. Use Load Case A for members directly supporting the screen surfaces perpendicular to the wind. Load Case B loads shall be applied only to structural members which carry wind loads from more than one surface.

f. The roof structure shall be analyzed for the pressure given occurring both upward and downward.

TABLE 120.I104.1(2) HEIGHT ADJUSTMENT FACTORS		
Mean Roof Height (ft)	Exposure	
	B	C
15	1	0.86
20	1	0.92
25	1	0.96
30	1	1.00
35	1.05	1.03
40	1.09	1.06
45	1.12	1.09
50	1.16	1.11
55	1.19	1.14
60	1.22	1.16

For SI: 1 foot = 304.8 mm.